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EXAMINER	
RIMELL, SAMUEL G	

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2175	

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/733,530	Applicant(s) MILBY ET AL.	
	Examiner Sam Rimell	Art Unit 2175	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) 1-29 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) 1-29 is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

SAM RIMELL
PRIMARY EXAMINER

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-29 are rejected under 35 U.S.C. 102(e) as being anticipated by Zheng et al.

Claim 1: FIG. 3 of Zheng et al. discloses a first file management context (columns 1-3 of the table) which is a pool of storage elements (bits) that indicates the allocation of permanent files (on disk). The first file management context is stored in columns of a relational table. The relational table itself is a permanent storage device because the table itself is never erased. While bits within table can be changed, the table itself is a permanent arrangement.

A second file context (all of columns in table of FIG. 3) are a second file management context and indicate the allocation of permanent files (column 1) and the allocation of temporary files (column 4). The second file context is part of file system cache manager (34) which in turn is part of file cache (24). Thus, the second file context is stored in a cache, which is a non-persistent memory.

Claim 2: The first file management context (columns 1-3 of FIG. 3) is a subset of the second file management context (columns 1-5 of FIG. 3).

Claim 3: The system includes a control module (20) which can update the second file management context (columns 1-5 in FIG. 3) without updating the first file management context (columns 1-3 in FIG. 3). For example, block 1 in FIG. 3 has been updated to include a pointer in

the fourth column (belonging to the second context), without updating the bit in column 1 (belonging to the first context).

Claim 4: The control module can update the bits in both of the first and second file management contexts. This is illustrated by block 3 in FIG. 3, where all of the columns have been updated. By converting the bits from "0" to "1" and activating the pointer.

Claim 5: The pool of storage elements (pool of bits in FIG. 3) correlate to blocks of memory in either the disk (persistent storage) or cache (non-persistent storage).

Claim 6: The table of FIG. 3 is used for purposes of memory allocation. This table allows the control module (20) to allocate to temporary storage (cache) or permanent storage (disk).

Claim 7: The first storage management context (cols. 1-3 of FIG. 3) includes a storage identifier map (col. 1) and an allocation unit map (col. 3). These columns indicate allocations of memory to permanent storage.

Claim 8: Since the second storage management context includes all of the elements of the first storage management context, it includes the storage identifier map and allocation unit map already contained in the first storage management context.

Claim 9: The system (20) is readable as an access module and contains non-persistent memory (cache).

Claim 10: The access module (20) is a server (col. 4, line 67).

Claim 11: The system includes an application programming interface (layer 23 in FIG. 1) which is invocable to access the first and second file management contexts.

Claim 12: Data can be copied from the first file management context to the second file management context during the operation of the system. For example an allocated block on a

disk, indicated by block 1, can be copied into an allocation in column 3 and a pointer in column 4 during the normal operation of the system.

Claim 13: FIG. 1 of Zheng et al. illustrates one access module (20), one persistent storage device (disk 22 or relational table in FIG. 3), a first file management context (columns 1-3 in FIG. 3) and a second file management context (columns 1-5 in FIG. 3).

Claim 14: Claim 14 recites steps being performed and not performed simultaneously, so it is presumed that the non-performance of the step is an option. The access module can perform the step of database logging (see 33 in FIG. 1). The logging occurs conditionally, such as when the system experiences a crash (col. 8, lines 52-61). The step of transaction locking is also optionally recited.

Claim 15: Any data contained in any file is readable as "user data". Any data contained in the table of FIG. 3 is considered to be a "query result" since the data in the table results from transactions.

Claim 16: See remarks for claim 1 and 3.

Claim 17: The first file management context is a map of memory allocation made on persistent memory, while the second file management context is a map of memory allocation on both persistent and non-persistent memory. During a crash, data on persistent memory is inherently retained, while data on non-persistent memory is inherently lost.

Claim 18: See remarks for claim 7.

Claim 19: See remarks for claim 8.

Claim 20: In FIG. 3, the resetting of bits from "0" to "1" is considered the activation of a flag. The activation of a pointer is also considered the activation of a flag.

Claim 21: See remarks for claim 12.

Claim 22: See remarks for claim 14.

Claim 23: See remarks for claim 1.

Claim 24-25: See remarks for claim 20.

Claim 26: See remarks for claim 14.

Claim 27: Columns 1-3 of FIG. 3 illustrate a first file management context. Columns 1-5 of FIG. 3 illustrate a second file management context. The first file management context can be viewed as being stored in a non-persistent memory in the sense that it the data elements are stored in a management structure (34) belonging to the cache memory (24). The second file management context can be viewed as being stored in a persistent storage in the sense the table itself which stores the data bits is persistent. Although the bits in the table may change, the table itself is never erased and is persistent.

Claim 28: In FIG. 3, block number 1 is updated in both the first context (columns 1-3) and the second context (columns 4-5). Block number 4 is updated in the first context (columns 1-3) without updating the second context (columns 4-5).

Claim 29: See remarks for claim 14.

Remarks

Declaration under 37 CFR 1.131:

Applicant's declaration under 37 CFR 1.131 has been received and fully considered. The declaration is ineffective in overcoming the application of the Zheng et al. reference for the following reasons:

(1) The "Invention Disclosure Record" (Exhibit A) which establishes the date of conception of March 26, 2000 is completely un-signed and un-dated. None of the signature blocks or date blocks are filled in by any of the inventors or other witnesses. Accordingly, this document does not positively confirm a date of conception of March 26, 2000.

(2) There is no evidence of diligence towards filing or reduction to practice between the alleged date of conception (March 26, 2000) and the first contact with applicant's representative (Dan C. Hu) on August 23, 2000, a period spanning almost five months. Accordingly, the evidence does not establish diligence from the alleged date of conception to the date of reduction to practice (in this instance, the application filing date of December 8, 2000).

For both of the above reasons, the declaration under 37 CFR 1.131 is considered ineffective in overcoming the application of the Zheng et al. reference.

Consideration of Zheng et al.:

Applicant's arguments regarding the content of the Zheng et al. reference have been considered. Applicant argues that the table in FIG. 3 is stored in memory, and thus does not meet claim limitations calling for storage of elements in both a persistent storage device and non-persistent memory. This argument is fully understood, but a consideration of the arrangement of system elements in FIG. 3 and FIG. 1 will illustrate how these limitations are in fact met. Fig. 3 illustrates a relational table that stores columns of data. Columns 1-3 are referred to as the "first context" and columns 1-5 are referred to as the "second context", which is a reasonable assumption for interpreting claim 1 because claim 2 states that one is a subset of the other.

The relational table itself is a permanent fixture of the system. While the bits within the table can be changed as needed, the table itself is never destroyed or erased. As a result, the table

itself and any columns of the table can be readable as a persistent storage. FIG. 1 shows that the data in FIG. 3 operates as part of the cache manager (34) which in turn is part of the file system cache (24). This demonstrates that the data is also part of a non-persistent storage (cache 24). Thus, the language recited in claim 1 calling for a persistent storage device (a relational table) and a non-persistent storage memory (a cache memory) and taught by the system elements of Zheng et al.

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication should be directed to Sam Rimell at telephone number (703) 306-5626.

Sam Rimell
Primary Examiner
Art Unit 2175